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General Computer Science I (320101) Fall 2012
Quiz 11: Soundness of a calculus
(Given Dec. 3. 2012)

Problem 11.1   (Soundness of a Calculus)
We have a calculus for propositional logic that consist of the axioms

$$P \vee \neg P \qquad \text{and} \qquad P \wedge Q \Rightarrow Q \wedge P$$

and the inference rule (called "modus tollens" by the way)

$$\frac{P \Rightarrow Q \quad \neg Q}{\neg P} \; MT$$

Show that this calculus is sound.